

REMARKS

Claims 1–15 were objected to because the word “modified” (as in the phrase “the modified savonius rotor”) was not needed. Claims 1–15 are hereby amended to to remove the word “modified.”

Claim 7 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite. In the Office Action we read: “The claim states that the, “rotors are rotated with respect to one another.”” What was not mentioned in the Office Action is that the claim cites the “rotors are *oriented* such that the Savonius rotors are rotated with respect to one another.” Therefore, the orientations of the plurality of rotors are rotated with respect to one another. To clarify, claim 7 is currently amended as follows, “...the plurality of Savonius rotors are oriented at fixed, rotated angular positions with respect to one another.”

Claims 1-5, 11 and 12 were rejected under 35 U.S.C. 102(b) as being anticipated by Benesh (U.S. Patent 5,494,407). This rejection is respectfully traversed.

Claim 1 recites: “at least one exhaust channel providing a flow path permitting air to pass **through** the Savonius rotor vane” (emphasis added). The office action implies this is satisfied by air passing through the **channel created by the two vanes** of Benesh (20, 20’). Clearly, flow **through a vane** and flow through a **channel created by two vanes** are distinct, and well understood by those of ordinary skill in the art. Note that claim 1 only requires “at least one vane.” *In the case of a single vane*, a **channel** between a plurality of vanes **cannot be created**. However, flow may pass through an exhaust channel providing a flow path through the one vane. Benesh does not disclose air flowing **through** a vane. Therefore, Benesh did not anticipate every limitation of claim 1.

Regarding claim 2, according to the Office Action: “Benesh discloses at least one vane comprises an ‘S’ shaped vane when viewed from an axis of rotation (blades 20 and 20’ in figure 2).” Clearly, the vanes (20, 20’) of Benesh are “J” shaped. It is respectfully submitted that one of ordinary skill knows and can discern the difference between an “S” and a “J”. There is no ambiguity in this description. Therefore, Benesh did not anticipate every limitation of claim 2.

Regarding claim 11, the claim recites: "...at least one exhaust channel to permit air to pass **through** the Savonius rotor vane..." (emphasis added). The office action implies this is satisfied by air passing through the **channel created by the two vanes** of Benesh (20, 20'). Clearly, flow **through a vane** and flow through a **channel created by two vanes** are distinct, and well understood by those of ordinary skill in the art. Note that claim 11 only requires "at least one vane." In the case of a single vane, a **channel** between a plurality of vanes **cannot be created**. However, flow may pass through an exhaust channel providing a flow path through the one vane. Benesh does not disclose air flowing **through** a vane. Therefore, Benesh did not anticipate every limitation of claim 11.

Regarding claim 12, the Office Action does not detail the rejection of this claim. However, the Office Action does read: "Regarding claim 11, Benesh discloses forming the at least one vane in an 'S' shape when viewed from an axis of rotation (figure 2)." It is assumed "claim 11" was intended to read, "claim 12" in this sentence.

Clearly, the vanes (20, 20') of Benesh are "J" shaped. It is respectfully submitted that one of ordinary skill knows and can discern the difference between an "S" and a "J". There is no ambiguity in this description. Therefore, Benesh did not anticipate every limitation of claim 12.

Claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Benesh in view of Lockwood and further in view of Themel (U.S. Patent 6,666,650). This rejection is respectfully traversed.

Claim 9 is currently amended to site the rotation of the conical solar collector with the Savonius rotor. This approach has significant advantage in that it does not require a frame or structure to support a stationary conical solar collector. Furthermore, such a conical solar collector could not be confused with a cone for providing space for the shaft as per Themel. Therefore, it would not have been to one of ordinary skill in the art at the time the invention was made to modify the rotor of Benesh by adding a cone to the top of the wind turbine, as taught by Themel for the purpose of adding space for the shaft.

Claims 10 and 15 were rejected under 35 USC 103(a) as unpatentable over Benesh in view of Lockwood and Themel. This rejection is respectfully traversed.

According to the Office Action: "It is common practice in the art of photovoltaic cell attachment to incline the cells to overcome problems that arise when trying to cover a round surface with a rigid flat object." It is respectfully requested that, if it is common practice, some evidence of this be provided as it pertains to this claim. As such, Applicants disagree that the claimed matter is at all common. In particular, the claim recites: "a plurality of isosceles triangle shapes of solar collector material **creased** from an apex to a center of a base such that a **cross section of the solar collector isosceles triangle is a "V" shape**" (emphasis added). Applicants disagree that such a construction would "overcome problems that arise when trying to cover a round surface with a rigid flat object." In fact, quite the opposite: this construction adds complexity to the structure.


Additionally, claims 2-10 depend on claim 1 and claims 12-15 depend on claim 11, and since claims 1 and 11 are clearly allowable over the prior art, dependent claims 2-10 and 12-15 are also assumed allowable. Therefore, it would not have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Savonius rotor of Benesh by inclining the adjacent cells of a circular row in order to form the circular rows of cells to make a cone as an engineering expedient.

Claims 16-20 have been added to further claim this invention.

Accordingly, because all remaining claims 1-20 are believed to be clearly allowable, a notice to that effect is earnestly solicited.

Respectfully submitted,

ART WHITWORTH

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August 26, 2005

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